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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,908	03/03/2004	Gregory Hsu	C6671(C)	3835

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EXAMINER
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DOUYON, LORNA M

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/791,908	<b>Applicant(s)</b> HSU ET AL.	
	<b>Examiner</b> Lorna M. Douyon	<b>Art Unit</b> 1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3 pages</u> . | 6) <input type="checkbox"/> Other: _____  |

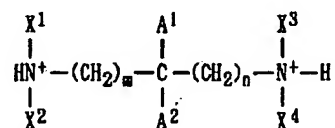
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1. This action is responsive to the amendment filed on November 16, 2005.
2. Claims 1-8 are pending.
3. The rejection of claim 3 under 35 U.S.C. 112, second paragraph is withdrawn in view of Applicants' amendment.
4. Claims 1-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman (US Patent No. 6,093,690), for the reasons set forth in the previous office action. In addition, the premix of the anionic surfactant acid precursor, polyamine polymer and solubilizer or binder like nonionic surfactants disclosed in col. 7, lines 22-24 and col. 8, lines 13-21 reads on the non-aqueous liquid binder of the present claims. With respect to the added limitation "the polyanionic ammonium surfactant produced by reacting 100% of a conjugate acid of an anionic surfactant with about 10% to about 50%, of the molar equivalent of the amount of the conjugate acid, of a polyamine", it would have been obvious to one of ordinary skill in the art at the time the invention was made to reasonably expect portions of the anionic acid precursor to have been neutralized with the polyamine polymer during the mixing operation as disclosed in col.7, lines 21-29.
5. Claim 5 stands provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/792,426 for the reasons set forth in the previous office action.

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6. Claims 1-4 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09003483 in view of Maunder et al. (US Patent No. 5,955,057), hereinafter "Maunder".

JP '483 teaches a detergent composition which contains an anionic surfactant whose counterion is a diamine salt expressed by the formula:



Wherein X<sup>1</sup> to X<sup>4</sup> are each H or a 1-10C alkyl; A<sup>1</sup> and A<sup>2</sup> are each H, a 1-3C alkyl or hydroxyl; (m) and (n) is each 0-6 and the surfactant is an alkyl- or alkenylsulfate whose 1-100 wt% counterion is a diamine salt of the formula, having 10-20 average carbon number, and further contains a water-soluble cationic polymer (see abstract), wherein the polymer is present in amounts from 0.5 to 7% by weight of the composition (see [0021] on page 2 of the computer translation). The polymer reads also on the solubilizing agent. The composition can be blended with nonionic surface active agents (see [0022] on page 2), which also reads on the nonaqueous liquid binder, and other additives such as propylene glycol or glycerol (see [0023] on page 2), which also reads on the solubilizing agent, in ranges which does not spoil the effectiveness of this invention (see sections [0022-0023] on page 2). Please note that JP '483 does not explicitly disclose the addition of water into the composition, and this would read on the limitations of instant claim 8. JP '483 also teaches that the detergent composition can be made in the form of a solid and is suitable as a cleaning agent for the bodies, such as the skin or hair (see [0024] on page 2). JP '483, however, fails to disclose the proportions of the solid particles in the composition.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the proportions of the solid particles of JP '483 through routine experimentation for best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Even though JP '483 does not teach a laundry use of the composition, the two different intended uses are not distinguishable in terms of the composition, see *In re Thuau*, 57 USPQ 324; *Ex parte Douros*, 163 USPQ 667; and *In re Craige*, 89 USPQ 393.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP '483 as applied to the above claims, and further in view of Maunder et al. (US Patent No. 5,955,057), hereinafter "Maunder".

JP '483 teaches the features as described above. JP '483, however, fails to disclose a solid composition comprising a solid acid and an alkaline ingredient.

Maunder teaches an effervescent foaming bath solid composition which comprises between 40 to 90% by weight of sodium bicarbonate and between 5 to 50% by weight of organic acid (see abstract) such as citric acid (see col. 3, line 56-57), which promotes skin cleansing (see col. 6, line 7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the sodium bicarbonate and citric acid of Maunder into the composition of JP '483 because JP'483 specifically desires the detergent composition to be in the form of a solid and the incorporation of said bicarbonate and citric acids into the composition would promote skin cleansing as taught by Maunder.

### *Response to Arguments*

8. Applicant' arguments filed November 16, 2005 have been fully considered but they are not persuasive.

With respect to the obviousness rejection based upon Chapman, Applicants argue that in Applicants' composition, the acid is fully neutralized by amine and by contrast, in Example V of Chapman very small amount of polyethyleneimine is employed compared to the alkylbenzene sulfonic acid which is included in a vast excess which results in a large amount of unneutralized alkylbenzene sulfonic acid in the composition, which of course is then neutralized by sodium tripolyphosphate, so it results in the vast amount of sodium LAS and a very small amount of neutralized polyethyleneimine. Applicants also argue that NaLAS is solid, so Example V of Chapman is solid granules, not a liquid binder. Applicants also argue that in Example V there is no mention of incorporation of solid acid or specific alkaline ingredients recited in Applicants' claim 5. Even if the Examiner alleges that it would have been obvious to incorporate these ingredients from portions of Chapman's teaching, the proportions incorporated would not have resulted in the independent solid acid and solid base since some or most of the base would have

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been taken up by vast quantity of alkylbenzene sulfonic acid remaining after the neutralization of polyethyleneimine to produce NaLAS.

The Examiner respectfully disagrees with the above arguments because of the following reasons. The present amended claim 1 requires a certain proportion of a polyanionic ammonium surfactant which is produced by reacting 100% of a conjugate acid of an anionic surfactant with about 10% to about 50%, of the molar equivalent of the amount of the conjugate acid, of a polyamine. While it is true that the acid is neutralized by amine to produce the polyanionic ammonium surfactant of the present claims, the presence of excess surfactant acid or portions of the surfactant acid neutralized by sodium carbonate are not excluded from the "comprising" language of the present claims. There is nowhere required in the claims wherein all the anionic acid surfactant in the composition is fully or completely neutralized by the amine. In col. 6, lines 13-17, Chapman teaches that the modified polyamine is preferably present in an amount of from about 0.01% to about 10% by weight of the overall detergent composition. In col. 6, line 66 to col. 7, line 3, Chapman teaches that the detergent agglomerates produced by the process have a surfactant level of from about 25% to about 55%. In col. 7, lines 22-42, Chapman teaches that the premix of acid precursor of a surfactant and modified polyamine is neutralized with a neutralizing agent, preferably a dry agent such as sodium carbonate in a high speed mixer/densifier followed by additional agglomeration in a moderate speed mixer/densifier, and optional adjunct detergent ingredients can be added in any step of the process, and those other ingredients are described as carbonates and citric acid in col. 3, line 11 and col. 24, line 4. In col. 8, lines 13-20, Chapman also teaches the step of spraying an additional binder in the mixer/densifier(s), and examples include nonionic surfactants, and the spraying of nonionic

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surfactant in the high speed mixer which contains the premix of the acid precursor and polyamine read on the non-aqueous liquid binder. With respect to the arguments relating to Example V, please note that a reference is not limited to the working examples, see *In re Fracalossi*, 215 USPQ 569 (CCPA 1982).

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. The references are considered cumulative to or less material than those discussed above.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lorna M. Douyon whose telephone number is (571) 272-1313. The examiner can normally be reached on Mondays-Fridays from 8:00AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Lorna M. Douyon*  
LORNA M. DOUYON  
PRIMARY EXAMINER